

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraphs beginning on page 4, line 2, to the paragraph beginning on page 8, line 11 with the following amended paragraphs:

A method of representing an object appearing in a still or video image, by processing signals corresponding to the image ~~set forth in claim 1~~ described herein, the method comprises deriving a plurality of numerical values associated with features appearing on the outline and applying a predetermined ordering to said values to arrive at a representation of the outline.

In a method ~~set forth in claim 2~~ described herein, the predetermined ordering is such that the resulting representation is independent of the starting point on the outline.

In a method ~~set forth in claim 3~~ described herein, the numerical values reflect points of inflection on the outline.

In a method ~~set forth in claim 4~~ described herein, a curvature scale space representation of the outline is obtained by smoothing the outline in a plurality of stages using a smoothing parameter sigma, resulting in a plurality of outline curves, using values for the maxima and minima of the curvature of each outline curve to derive curves characteristic of the original outline, and selecting the ~~eo-ordinates~~ coordinates of peaks of said characteristic curves as said numerical values.

In a method ~~set forth in claim 5~~ described herein, the ~~eo-ordinates~~ coordinates of the characteristic curves correspond to an

arc-length parameter of the outline and the smoothing parameter.

In a method ~~set forth in claim 6~~ described herein, the peak ~~co-ordinate~~ coordinate values are ordered on the basis of the peak height values, corresponding to the smoothing parameter.

In a method ~~set forth in claim 7~~ described herein, the values are ordered starting from the greatest value.

In a method ~~set forth in claim 8~~ described herein, the values are ordered in decreasing size.

In a method ~~set forth in claim 9~~ described herein, the values are ordered starting from the smallest value.

A method of representing an object appearing in a still or video image, by processing signals corresponding to the image ~~set forth in claim 10~~ described herein, the method comprises deriving a plurality of numerical values associated with features appearing on the outline of an object to represent said outline and deriving a factor indicating the reliability of said representation using a relationship between at least two of said values.

In a method ~~set forth in claim 11~~ described herein, the factor is based on the ratio between two of said values.

In a method ~~set forth in claim 12~~ described herein, the ratio is of two greatest values.

In a method ~~set forth in claim 13~~ described herein, a curvature scale space representation of the outline is obtained by smoothing the outline in a plurality of stages using a smoothing parameter sigma, resulting in a plurality of outline curves, using

values for the maxima and minima of the curvature of each outline curve to derive curves characteristic of the original outline, and selecting the ~~co-ordinates~~ coordinates of peaks of said characteristic curves as said numerical values.

~~In a method set forth in claim 14, the~~ The values are derived using a method as ~~elaimed in any one of claims 1 to 9~~ described herein.

A method of searching for an object in a still or video image by processing signals corresponding to images as ~~set forth in claim 15~~ described herein, the method comprises inputting a query in the form of a two-dimensional outline, deriving a descriptor of said outline using a method as ~~elaimed in any one of claims 1 to 9~~ described herein, obtaining a descriptor of objects in stored images derived using a method as ~~elaimed in any one claims 1 to 9~~ described herein and comparing said query descriptor with each descriptor for a stored object, and selecting and displaying at least one result corresponding to an image containing an object for which the comparison indicates a degree of similarity between the query and said object.

~~In a method set forth in claim 16, a~~ A factor is derived for the query outline and for each stored outline using a method as ~~elaimed in any one of claims 10 to 12~~ described herein, and the comparison is made using the predetermined ordering only or the predetermined ordering and some other ordering depending on said factors.

A method of representing a plurality of objects appearing in still or video images, by processing signals corresponding to the images ~~set forth in claim 17~~ described herein, the method comprises deriving a plurality of numerical values associated with features appearing on the outline of each object and applying the same predetermined ordering to said values for each outline to arrive at a representation of each outline.

An apparatus ~~set forth in claim 18~~ is adapted to implement a method as ~~claimed in any one of claims 1 to 17~~ described herein.

A computer program ~~set forth in claim 19~~ implements a method as ~~claimed in any one of claims 1 to 17~~ described herein.

A computer system ~~set forth in claim 20~~ is programmed to operate according to a method as ~~claimed in any one of claims 1 to 17~~ described herein.

A computer-readable storage medium set forth in claim 21 stores computer-executable process steps for implementing a method as ~~claimed in any one of claims 1 to 17~~ described herein.